

NOTES IN THE PROVINCES.

The "Board of Health" is in operation at Derby. At a meeting of the clergy last week they unanimously resolved to petition the Board to stop "intramural interment"—at once admitting that their grave-yards were crowded—and praying for the formation of a large cemetery at the outskirts of the town. We are glad to learn that the notice of the grave-yards at Derby in a former number was not without effect.—A large inn, with hall attached, for the purpose of holding the meetings of the County Court, is in course of erection at Belper. The court is 70 feet by 30, and 22 high, to which is attached judge's room, water-closet, and lavatory; barrister's ditto, with a gallery at either end,—one for an orchestra, the other for the public, in case of its being used as an assembly-room. Mr. Wigginton, of Derby, was the architect employed. Mr. Freeman, the builder.—The new church, at Belper, Mr. Stevens, of Derby, architect, was consecrated, on Tuesday before last.—The new Fish-market building at Lincoln is being rapidly proceeded with by the contractor: its division into a number of separate shops is objected to.—A new church is about to be built at the Hockerell end of Bishop's Stortford, at an estimated cost of 2,500*l.*, of which 900*l.* have been raised, and a site presented.—A plan and specification of a butter and poultry market for Leicester have been prepared by Mr. Flint, architect, and adopted by the town council. The area will be 5,250 feet, divided into three parallel avenues, with triple roof, and vaults beneath the ground-floor. The walls are to be of brickwork, stucco, and cement, with stone coping, &c., and pavement.—The glass of the three eastern slopes of the roof is to be 8th cast-plate. The estimated expense of the building is 1,730*l.*, exclusive of fittings and deducting old materials.—At Wantage, on Monday in week before last, the foundation-stone of a school for sons of farmers and tradesmen of Wantage, was laid in memory of King Alfred, who was born there; and on same day a school for poor children was dedicated, and a small chapel on the Vicar's Glebe consecrated. The charity school has cost about 1,700*l.*, raised by subscription, and it is in the Early English style. The school about to be erected is to be in the Pointed style, and to form three sides of a quadrangle. The material will be Cirencester stone, with Bath stone quoins and dressings. The roof of the school will be open to the timber framing. Mr. J. B. Clacy, of Reading, is the architect, and Messrs. Hunt and Kent, of Wantage, are the contractors.—A new guard-house, &c., is about to be erected near King William's Gate-way, at Portsmouth, on a plan already prepared at the Royal Engineers' Office there.—The Worcester New Gas Company have just declared a dividend, at the rate of 8 per cent., for the last half-year.—Sir William and Lady Cockburn have presented to the parish church of New Radnor, Herefordshire, the new casting of the church-bells, as an useful monument to their eldest son, who had recently died at Rome, on the eve of his majority. While asking to be allowed to make the offering, Sir William adds:—"I make no stipulation as to my wish that these bells, when completed, should, by a muffled peal, record the 3rd of each May, when, at Rome, God 'stripped me of my glory, and took the crown from my head.'"—Shares, to the extent of 4,050*l.*, have been taken for the proposed public hall at Leeds.

THE CHIEF IRON MANUFACTURING ESTABLISHMENT IN THE UNITED STATES.—The Novelty Iron Works, belonging to Messrs. Stillman and Allen, whose names are intimately associated, as engine-builders, with the success attending our most valuable ocean steamers, are among the largest in the United States. No less than 1,016 men are employed in its various departments, whose weekly wages amount to about nine thousand dollars. The amount of iron melted here, in one month, is not far from 300 tons, all of American manufacture. The yearly business transacted is equal to nearly one million dollars.—*New York Journal of Commerce.*

* See page 221 *contd.*

THE METROPOLITAN DRAINAGE.
SURREY AND KENT DISTRICTS.

At a meeting of the Metropolitan Sewers' Commission, held on Friday last, Lord Ebrington in the chair, Mr. Forster's report on the system to be adopted for the drainage of the southern districts was read. This report in its entire state is too long for admission into our columns; but we give it in abstract, exclusive of its preliminary exposition of principles and objects, and its more detailed particulars.

"SURREY DRAINAGE." August 1.

"My Lord and Gentlemen,—I now proceed to furnish a report and estimate for a complete system of drainage for the Surrey and Kent districts, including extensive alterations in the inclination of existing sewers.

Notwithstanding the labour and ingenuity displayed in many of the plans for the drainage of the metropolis sent in last year—some of which dealt ably with the general drainage on the north side of the Thames—I have been, in laying out the plan of drainage for the south side, able to derive little or no practical assistance from any of them, which is to be accounted for, doubtless, by the necessarily defective data on which they were based, owing to the imperfect nature of the information which it was then in the power of the commissioners to supply to their various authors; but I feel it my duty to acknowledge in the outset the very valuable assistance I have received from plans and suggestions prepared, after consulting the block plans and subterranean surveys, by a member of your hon. commission, who kindly placed them in my hands during the preparation of the plan I have now to submit.

I recommend the top of Woolwich Reach as the point for delivering the sewage into the river, because I believe that the matter so delivered at and after high water, and in the centre and at the bottom of the stream, will not rise to the surface, so as to inconvenience the inhabitants of Woolwich. If, however, it should be deemed expedient, either for agricultural purposes or for any other reason, to convey the sewage below Woolwich, to some point near Erith, before its delivery into the Thames, it may be effected by means of iron pipes across the marshes and through Woolwich, to be supplied by an engine and stand pipe erected at or near the Woolwich road, near Greenwich-gate.

Commencing with the outlet at a point eight miles below London-bridge, it is proposed to form a double reservoir, capable of holding at least twenty-four hours' drainage, covered over, and elevated to such a height as to discharge the whole of its contents at high water, delivering them by means of pipes, near the middle and at the bottom of the river. The sewage will be lifted into the reservoir (by means of an engine) from the main sewer, the invert of which is proposed to be at about mean low water mark, and 10 feet below the surface of the marshes.

Hence the course of the main sewer will be across Greenwich Marshes, along Woolwich Lower-road, Trafalgar-road, and Roan-street, to the Ravensbourne (where there is proposed to be a lift not exceeding 25 feet) passes under the river Ravensbourne past the corner of the Trinity almshouses, crossing Union-street and Bridge-row or Collier-street.

This lift and shaft I propose to place completely under cover, and to connect with the chimney of the smoke-consuming furnace of the engine all the passages from which any gases could escape from the sewer, and I feel perfectly confident that with these precautions the possibility of any annoyance being caused to the neighbourhood may be avoided.

It is not proposed that the engines should have to raise all the storm water or land floods: these will be provided for in extraordinary cases by the four existing outlets, viz., the Effra, the Earl, the Duffield, and the St. John sewers, and by means of reservoirs and a diversion of the upper part of the Effra to keep the low-lying and thickly inhabited part of the district free from floods.

I beg now to lay before you my estimate of the cost of draining the district according to the system above described: but before doing this I would observe that in drawing up this report and these estimates I have thought it desirable to put down the outside amount of lift, of depth of drains, &c., in order that if there be any error it may be on the right side. In this estimate I have neither included compensation for passing through or under private property, which, however, from the lines adopted in accordance with the principle you laid down, will be comparatively trifling; nor the cost of the detailed drainage, to estimate which will

* Notwithstanding this statement, &c. do hope the commissioners will immediately take into consideration the propriety of rewarding some of the competitors. There are two or three who have spent much money upon the matter, and one all afford it. If their plans have been of service they should be compensated, or might be employed.

be a work of much time and lengthened inquiry. In any case this will involve a considerable outlay; but as it is dependent on the settlement and partial completion of the main drainage, it would have been premature to go into it here; neither have I taken into account the cost of extending the system of drainage into the suburban districts—a provision which it becomes daily more imperative to make.

Estimates of cost of system above described.

	Miles. Fms.	Cost.
Main trunk drain from outlet in Greenwich marshes to the lift at the Ravensbourne	8 0	425,000
Reservoirs and outlet pipes		20,000
Pumping engines and apparatus		27,000
From the lift at the Ravensbourne to a point near St. James's Church, Bermondsey, north main line	2 8	47,000
Extension of north main line from St. James's Church to the Great St. John sewer	0 6	1,000
South main line from Collier-street, Deptford, to St. Mark's Church, Kensington	4 3	85,000
Flood line of Effra	0 6	7,500
Intermediate main drain from Surrey Canal-bridge, with a vertical shaft to Rotherhithe Hill (Clapton)	2 6	12,000
Southern arm along New West-end	1 0	1,000
Alteration of existing sewers to connect with the intermediate main drain, &c.	5 0	72,000
Effra flood line overflow, by Fenchurch		7,000
	13 8	621,500

The report being read, Mr. Stephenson entered into some further explanations, during which he remarked that in reply to complaints out of doors, the public must bear in mind that the commission has not been more than ten months in existence, and that some of its members came into it quite fresh—unacquainted with a great number of the localities of London, and absolutely unacquainted with the complicated system of sewage existing, to the extent of nearly 600 miles. In addition to this, the underground surveys were in a very incomplete state, and no one could venture to say what general plan ought to be pursued at that time, as it was dangerous to commence with any one locality, for fear of interfering with the ultimate chance of success. In considering the necessity of beginning on the Surrey side, he characterised the whole system of sewers on that side as but an articulation of cesspools. With more especial reference to the scheme proposed, he said the expense of pumping may at first appear to be very great, but when it was reported to me, by the officers of the commission that the cost of flushing and the cost of removing the solid matter now collected at the bottom of the sewers would be very great, and that the cost of pumping up the whole of the sewage matter would cost less money, I thought that the system of pumping, as applied to the south side of the Thames, appeared to be entirely without objection.

Sir John Burgoyne said, that as to the general principles laid down in Mr. Forster's report, the commissioners were unanimous in adopting them, and that, with regard to details, there was no difference of opinion amongst them.

The Chairman rejoined that the Court had at last succeeded in coming to a satisfactory solution of this very difficult question. His lordship proposed to formally adopt this report at a future special court; agreed to without remark.

Mr. Hawes said,—In reference to the prompt execution of these works, we are now to treat with several persons for the loan of sufficient money to carry them out. We shall require about 250,000*l.* to be repaid in thirty years by thirty instalments, principal and interest. The expense so divided will amount to about 2*l.* in the pound. That, the chairman added, would depend on the terms made; but the charge would be about 2*l.* or 3*l.* in the pound.

A Gentleman in court asked, whether it was compulsory on landlords to drain into these sewers when formed?

Mr. Hawes, in reply, observed, that every house within 100 feet of a sewer must drain into it, and care would be taken to have a sewer within 100 feet of every house.

Previous to entering into the question of drainage, the chairman alluded to an error in the public reports, as to the expenses of management, and an explanation was given in a report read by the secretary. But from these erroneous reports, those of the Britania ought to have been excluded, as we fell into no such error. The item, "payments of books, surveys, management, &c. 85,346*l.* 6*s.* 6*d.*" involved the error in question, the word "books" being a mistake for some of the daily papers for the more important word, "works." The expense of management is quite large enough, without overstating it.

We regret to have here to say that a considerable portion of the Ordnance map of the metropolis has been seriously injured, some of the work, indeed, quite obliterated, by a malignant unknown, who appears to have managed to pour nitrate of silver on it, although it had been carefully deposited in a drawer at the office in Greenwich-street.